

Translation

PATENT COOPERATION TREATY

PCT/JP2003/015603



PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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|---|--|--|
| Applicant's or agent's file reference SC(PCT)-78 | FOR FURTHER ACTION See Form PCT/IPEA/416 | |
| International application No. PCT/JP2003/015603 | International filing date (day/month/year) 05 December 2003 (05.12.2003) | Priority date (day/month/year) 27 December 2002 (27.12.2002) |
| International Patent Classification (IPC) or national classification and IPC H01H 37/76, 85/046, 85/08, 85/12 | | |
| Applicant SONY CHEMICALS CORP. | | |

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 4 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
 - ☐ (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - ☐ (sent to the International Bureau only) a total of _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
- This report contains indications relating to the following items:

| | |
|---|---|
| <input checked="" type="checkbox"/> Box No. I | Basis of the report |
| <input type="checkbox"/> Box No. II | Priority |
| <input type="checkbox"/> Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI | Certain documents cited |
| <input type="checkbox"/> Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> Box No. VIII | Certain observations on the international application |

| | |
|---|---|
| Date of submission of the demand 22 January 2004 (22.01.2004) | Date of completion of this report 14 July 2004 (14.07.2004) |
| Name and mailing address of the IPEA/JP | Authorized officer |
| Facsimile No. | Telephone No. |

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International application No.

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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:

☐ international search (under Rules 12.3 and 23.1(b))

☐ publication of the international application (under Rule 12.4)

☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☒ The international application as originally filed/furnished

☐ the description:

pages _____, as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

☐ the claims:

pages _____, as originally filed/furnished

pages* _____, as amended (together with any statement) under Article 19

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

☐ the drawings:

pages _____, as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | | |
|-------------------------------|--------|-----|-----|
| Novelty (N) | Claims | 1-4 | YES |
| | Claims | | NO |
| Inventive step (IS) | Claim | 4 | YES |
| | Claims | 1-3 | NO |
| Industrial applicability (IA) | Claims | 1-4 | YES |
| | Claims | | NO |

2. Citations and explanations (Rule 70.7)

Document 1: JP, 2001-325868, A (Sony Chemicals Corp.), November 22, 2001 (11.22.01)
 Document 2: JP, 2000-306477, A (Sony Chemicals Corp.), November 2, 2000 (11.02.00)
 Document 3: JP, 2000-285778, A (Sony Chemicals Corp.), October 13, 2000 (10.13.00)
 Document 4: JP, 11-7876, A (Uchihashi Esutekku K.K.), January 12, 1999 (01.12.99)
 Document 5: JP, 52-31363, A (McGraw-Edison Co.), March 9, 1977 (03.09.77)
 Document 6: JP, 53-8755, A (McGraw-Edison Co.), January 26, 1978 (01.26.78)

The inventions relating to claims 1 through 3 do not appear to involve an inventive step.

The invention relating to claim 1 does not appear to involve an inventive step based on documents 1 through 6 cited in the ISR.

All of documents 1 through 3 describe a protection element comprising a heating element and low-melting-point metal element on a substrate, wherein the low-melting-point metal element is fused by heating the heating element.

Also, all of documents 4 through 6 describe a pair of electrodes, wherein all or part of the lateral cross-sectional surface of the low-melting-point metal element is segmented substantially into at least two independent sections.

Applying the low-melting-point metal element of documents 4 through 6 to the protection element of documents 1 through 3 could be easily conceived of by a party skilled in the art.

The invention relating to claim 2 does not appear to involve an inventive step based on documents 1 through 4 and 6 cited in the ISR.

Applying at least two strips of the low-melting-point metal element described in any of documents 4 through 6 to the protection element of documents 1 through 3 could be easily conceived of by a party skilled in the art.

The invention relating to claim 3 does not appear to involve an inventive step based on documents 1 through 3 and 5 and 6 cited in the ISR.

Applying one strip of the low-melting-point metal element with a slit in the center described in either documents 5 and 6 to the protection element of documents 1 through 3 could be easily conceived of by a party skilled in the art.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of Box V:

The invention relating to claim 4 appears to be novel and involve an inventive step.

The constitution of the invention relating to claim 4 is not described in any of documents 1 through 6 cited in the ISR.